Title: Electronic Textbook in Mathematical Methods of Physics

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Abstract:

The objective of this work is to continue in Electronic Textbook in Introduction of Mathematical Methods of Physics and to create an other studing text not only for the first grade students (future physics teachers) at FMP CU but also for other students of physical and technical domains at universities which should help them with an introduction into mathematic necessary in physics. The main matter of this work is based on preparations and texts of dr. A Hladík, prof. J. Podolský and dr. V. Žák for lectures and exercises of subject Introduction of Mathematical Methods of Physics and Mathematical Methods in Physics I. The author's experience are also reflected. Equally, a small recherche of an existence and an availability of other sources pursuing given matters has been done. Some of these sources are recommended in this work. The created text should help readers with elementary matter of antiderivatives and Riemann integrals, double and triple integrals and integrals of the first kind with a special consideration to their applications in physics. A contribution of this and previous work for students is a subject of researching. An extension of this text with other elementary parts of mathematical methods in physics is presumed too.

Keywords:

mathematical methods of physics, integral calculus, Riemann integral, double integral, triple integral, integrals of the first kind